

Remarks

Claims 1-3 and 8-59 are pending in the subject application. Applicants acknowledge that claims 17-29, 31-50, and 53-56 have been withdrawn from further consideration as being drawn to a non-elected invention. By this Amendment, Applicants have canceled claims 17-29, 31-50, and 53-56, amended claims 1-3, 13, 14, and 57-59, and added new claims 60-62. Support for the amendments and new claims can be found throughout the subject specification and in the claims as originally filed. Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 1-3, 8-16, 30, 51, 52, and 57-62 are currently before the Examiner. Favorable consideration of the pending claims is respectfully requested.

Applicants have submitted with this Amendment formal Figures 1-3 in response to the Notice of Draftperson's Patent Drawing Review. Accordingly, reconsideration and withdrawal of the objection is respectfully requested

Claims 1-3, 8-16, 30, 51, 52, and 57-59 are rejected under 35 U.S.C. §112, second paragraph, as indefinite. The Office Action has rejected claims 9, 11, 13, 15, 30, 51, and 52 on the grounds that these claims depend, either directly or indirectly, from cancelled claims. This issue has been addressed via amendment of the claims to correct the dependencies of the claims.

Claims 1-3, 8-16, 30, 51, and 52 have been rejected under 35 U.S.C. §112, second paragraph, as indefinite. The Office Action indicates that it is unclear as to whether the claimed polynucleotide sequences are specific segments of the full nucleotide sequence of the *C. trachomatis* genome that encodes the polypeptide sequences recited in the claims or if the claimed polynucleotide sequences are any of those that encode the polypeptide sequences recited within the claims. The claims have been amended to clarify that the claimed polynucleotide sequences encode the various polypeptides recited within the claims.

The claims have also been rejected as vague and indefinite in their recitation of certain percentages of homology (such as 80% or 99.9%). Applicants have addressed this aspect of the rejection by amendment of the claims to indicate that the claimed polynucleotides encode polypeptides having at least 80% homology to the open reading frames (ORFs)/SEQ ID NOs. recited in the claims. Claims 57-58 have been rejected in light of the recitation that a claimed

polynucleotide sequence “is contained” within a deposited material. The claims have been amended to indicate that the claimed polynucleotide sequences can be obtained from the deposited materials. In light of the amendments made to the claims of the subject application, reconsideration and withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested and the Examiner is invited to contact the undersigned in the event that other amendments might place the subject application in condition for allowance.

Claims 1-3, 51, 52, 57, and 58 are rejected under 35 U.S.C. §102(b) as anticipated by Product O 2503 of the 1990 Sigma Chemical Catalog and claims 1-3, 30, 51, 52, 57, and 58 are rejected under 35 U.S.C. §102(b) as anticipated by Southern (P/N 5,700,637). The Office Action argues that the Sigma product anticipate the claimed invention in that it teaches the polynucleotide “TTT”. The Office Action also asserts that Southern anticipates the claimed invention in the teachings of probes having lengths of 9 to 20 nucleotides. Applicants respectfully submit that neither reference anticipates the claimed invention in that there are no teachings of: 1) a polynucleotide sequence encoding a polypeptide selected from the group consisting of SEQ ID NO. 1083, SEQ ID NO. 1089, SEQ ID NO. 1091, SEQ ID NO. 1095, SEQ ID NO. 1096, SEQ ID NO. 1105, SEQ ID NO. 1117, SEQ ID NO. 1140, SEQ ID NO. 1159, and SEQ ID NO. 1167; 2) an isolated polynucleotide sequence encoding a polypeptide that has at least 80% homology to a polypeptide selected from the group consisting of SEQ ID NO. 1083, SEQ ID NO. 1091, SEQ ID NO. 1095, SEQ ID NO. 1096, SEQ ID NO. 1105, SEQ ID NO. 1117, SEQ ID NO. 1140, SEQ ID NO. 1159, and SEQ ID NO. 1167; or 3) an isolated polynucleotide sequence that hybridizes to a *Chlamydia trachomatis* polynucleotide sequence encoding a polypeptide selected from the group consisting of SEQ ID NO. 1083, SEQ ID NO. 1089, SEQ ID NO. 1091, SEQ ID NO. 1095, SEQ ID NO. 1096, SEQ ID NO. 1105, SEQ ID NO. 1117, SEQ ID NO. 1140, SEQ ID NO. 1159, and SEQ ID NO. 1167, under conditions of high or intermediate stringency, wherein said hybridizing polynucleotide sequence is complementary to a polynucleotide sequence that encodes a polypeptide having at least 80% homology to a polypeptide selected from the group consisting of SEQ ID NO. 1083, SEQ ID NO. 1091, SEQ ID NO. 1095, SEQ ID NO. 1096, SEQ ID NO. 1105, SEQ ID NO. 1117, SEQ ID NO. 1140, SEQ ID NO. 1159, or SEQ ID NO. 1167 or wherein said hybridizing polynucleotide sequence is complementary to a polynucleotide sequence that encodes a polypeptide identical to SEQ ID NO.

1089. Accordingly, reconsideration and withdrawal of the rejections set forth under 35 U.S.C. §102(b) is respectfully requested.

Claims 1-3, 30, 51, 52, 57, and 58 rejected under 35 U.S.C. §103(a) as obvious over Southern (P/N 5,700,637). The rationale for setting forth this rejection appears to center on an argument that, under one interpretation, the Southern reference does not teach the actual sequences claimed herein and that such sequences are suggested in the complete set descriptions set forth in the teachings of the reference. The Office Action also argues that the claimed invention would have been obvious to one skilled in the art at the time of invention as the arrays of Southern would produce embodiments of the claimed invention. Applicants respectfully traverse.

To establish the *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). In the case of the instant invention, Applicants, again, respectfully submit that the reference fails to teach: 1) a polynucleotide sequence encoding a polypeptide selected from the group consisting of SEQ ID NO. 1083, SEQ ID NO. 1089, SEQ ID NO. 1091, SEQ ID NO. 1095, SEQ ID NO. 1096, SEQ ID NO. 1105, SEQ ID NO. 1117, SEQ ID NO. 1140, SEQ ID NO. 1159, and SEQ ID NO. 1167; 2) an isolated polynucleotide sequence encoding a polypeptide that has at least 80% homology to a polypeptide selected from the group consisting of SEQ ID NO. 1083, SEQ ID NO. 1091, SEQ ID NO. 1095, SEQ ID NO. 1096, SEQ ID NO. 1105, SEQ ID NO. 1117, SEQ ID NO. 1140, SEQ ID NO. 1159, and SEQ ID NO. 1167; or 3) an isolated polynucleotide sequence that hybridizes to a *Chlamydia trachomatis* polynucleotide sequence encoding a polypeptide selected from the group consisting of SEQ ID NO. 1083, SEQ ID NO. 1089, SEQ ID NO. 1091, SEQ ID NO. 1095, SEQ ID NO. 1096, SEQ ID NO. 1105, SEQ ID NO. 1117, SEQ ID NO. 1140, SEQ ID NO. 1159, and SEQ ID NO. 1167, under conditions of high or intermediate stringency, wherein said hybridizing polynucleotide sequence is complementary to a polynucleotide sequence that encodes a polypeptide having at least 80% homology to a polypeptide selected from the group consisting of SEQ ID NO. 1083, SEQ ID NO. 1091, SEQ ID NO. 1095, SEQ ID NO. 1096, SEQ ID NO. 1105, SEQ ID NO. 1117, SEQ ID NO. 1140, SEQ ID NO. 1159, or SEQ ID NO. 1167 or wherein said hybridizing polynucleotide sequence is complementary to a polynucleotide sequence that encodes a polypeptide identical to SEQ ID NO. 1089. Thus, it is respectfully submitted that the cited prior art

fails to teach each and every limitation of the claimed invention and that a *prima facie* case of obviousness has not been established.

Furthermore, the fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness. *In re Baird*, 16 F.3d 380, 382, 29 U.S.P.Q.2d 1550, 1552 (Fed. Cir. 1994). In order to establish a case of *prima facie* obviousness, it is incumbent upon the Patent Office to determine whether one of ordinary skill in the relevant art would have been motivated to make the claimed invention as a whole, *i.e.*, to select the claimed species or subgenus from the disclosed prior art genus. *See, e.g., In re Ochiai*, 71 F.3d 1565, 1569-70, 37 USPQ2d 1127, 1131 (Fed. Cir. 1995); *In re Deuel*, 51 F.3d 1552, 1557, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995) (“[A] *prima facie* case of unpatentability requires that the teachings of the prior art suggest the claimed compounds to a person of ordinary skill in the art.”; *In re Jones*, 958 F.2d 347, 351, 21 USPQ2d 1941, 1943-44 (Fed. Cir. 1992; *In re Dillon*, 919 F.2d 688, 692, 16 USPQ2d 1897, 1901 (Fed. Cir. 1991); *In re Lalu*, 747 F.2d 703, 705, 223 U.S.P.Q. 1257, 1258 (Fed. Cir. 1984) (“The prior art must provide one of ordinary skill in the art the motivation to make the proposed molecular modifications needed to arrive at the claimed compound.”). Applicants respectfully submit that such motivation is lacking in the case of the instant application and, in view of the arguments set forth with respect to the rejection, reconsideration and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicants’ agreement with or acquiescence in the Examiner’s position. Applicants expressly reserve the right to pursue the invention(s) disclosed in the subject application, including any subject matter canceled or not pursued during prosecution of the subject application, in a related application.

In view of the foregoing remarks and amendments to the claims, Applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

Applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



Frank C. Eisenschenk, Ph.D.

Patent Attorney

Registration No. 45,332

Phone No.: 352-375-8100

Fax No.: 352-372-5800

Address: 2421 N.W. 41st Street, Suite A-1
Gainesville, FL 32606-6669

FCE/sl

Attachments: Formal Figures 1-3

Petition for Extension of Time